

# **Design Build Materials Testing Frequencies and Random Sampling Program**

## **Policy**

Materials Quality Assurance, (QA), sampling and testing frequency will be performed in accordance with the WSDOT Construction Manual, Materials Manuals, Standard Specifications, or other contract provisions defined in the design built agreement.

Materials Quality Verification, (QV), sampling and testing will typically be performed at a rate of one (1) verification test to every five (5) of the design builder's acceptance testing. During production startup testing may be required on a more frequent basis until the process is established to be under good control. When QV testing reaches 25 samples, and the QA and QV testing can be statically validated, the frequency of the QV tests can be reduced to 1 in 20. If at any time the QA and QV testing can not be validated, then the QV testing frequency shall be reduced to 1 in 5 until 25 samples are reached again with satisfactory statistical validation.

For all materials that are not addressed by WSDOT standards, material testing specifications, testing procedures, and frequencies will be determined by the Materials Quality Assurance Team with concurrence of the Engineer of Record..

All acceptance and verification sampling and testing shall be randomly obtained, at the location and frequency stated in the contract documents. The Design-Builder shall provide to WSDOT a testing plan for each material. The testing plan shall be developed using a Random Numbers Table and reflect the proposed total project quantity. The testing plan shall be submitted prior to the beginning of production or placement of the material.

When small quantities of materials are to be used, they can be accepted without sampling and testing when the quantity of materials proposed for use by the Design Builder are less than the minimum sampling and testing frequencies. Structural Concrete will not be considered under the small quantity definition. The Engineer of Record shall follow the procedure for acceptance of small quantities found in Chapter 9-5.2 of the construction manual.

## **Discussion**

The federal regulations require that a quality assurance program be developed which includes the frequency for sampling and testing, specifies the location for sampling and testing, and that all sampling be randomly.